

KALMENS, R.I.

RAPOPORT, A.L., professor, redaktor; SOKOLOVSKIY, A.L., professor, redaktor;
KALMENS, R.I., redaktor; KISINA, Ye.I., tekhnicheskij redaktor

[Technology of confection production] Tekhnologiya konditerskogo
proizvodstva. Moskva, Pishhepromizdat. Pt.2. 1952. 417 p.
(Confectionery) (MLRA 10:1)

ZINOV'YEV, A.A., professor, doktor tekhnicheskikh nauk; KALMUNTS, R.I., ~~professor~~
daktor; KISINA, Ye.I., tekhnicheskiiy redaktor.

[Chemistry of fats] Khimiia zhirov. Moskva, Pishchepromisdat, 1952.
550 p. (MLA 8:2)
(Oils and fats)

VIDANOV, K.Kh.; KOTEL'NIKOV, S.A.; KAIMENS, R.I., redaktor; DUBOVKINA,
N.A., tekhnicheskiiy redaktor

[Bakery goods production] Proizvodstvo muchnykh konditerskikh
izdelii. Moskva, Pishchepromizdat, 1953. 207 p. (MLRA 7:9)
(Baking)

MOGILYANSKIY, N.K.; KALMENS, R.I., redaktor; DUBOVKINA, N.A., tekhnicheskiiy redaktor.

[Production of cider] Proizvodstvo sidra. Moskva, Pishchepromizdat, 1954. 61 p. (NLRA 7:11)
(Cider)

KALAEV, R.I.

DEVYATNIN, V.A., kandidat sel'sko-khozyaystvennykh nauk, redaktor; ~~EMERSONS~~,
R.I., redaktor; GOTLIB, E.M., tekhnicheskoy redaktor.

[Methods of determining vitamins; chemical and biological] Metody
opredeleniya vitaminov (khimicheskie i biologicheskie). Pod red. V.A.
Devyatnina. [Moskva], Pishchepromizdat, 1964. 135 p. (MIRA 8:4)

1. Zaveduyushchiy khimiko-analiticheskoy laboratoriyey Vsesoyuznogo
nauchno-issledovatel'skogo vitaminnogo instituta (for Devyatnin).
(Vitamins)

KONOVTSSEV, S.V.; KALMENS, R.I., redaktor; DUBOVKINA, N.A., tekhnicheskii
redaktor

[The equipment of bakeries] Oborudovanie khlebopekarnykh predpriiatii.
Moskva, Pishchepromizdat, 1954. 275 p. [Microfilm] (MLRA 8:3)
(Bakers and bakeries)

GOLDOVSKIY, Aleksandr Mikhaylovich, prof.; KALMENS, R.I., red.; CHIBYSHEVA,
Ye.A., tekhn. red.

[Theoretical principles of vegetable oil production] Teoreticheskie
osnovy proizvodstva rastitel'nykh masel. Moskva, Pishchepromizdat,
1958. 445 p. (MIRA 11:12)

(Oils and fats)

KAL'MENS, R.I.

SILIN, Pavel Mikhaylovich; KAL'MENS, R.I., red.; CHERBYSEVA, Ye.A.,
tekh.red.

[Beet sugar technology and white sugar refining] Tekhnologiya
sveklосakharnogo i rafinadnogo proizvodstva. Moskva, Pishche-
promizdat, 1958. 600 p. (MIRA 11:6)
(Sugar manufacture)

SOKOL'NIKOV, N.P., inzh.; KONDRATSKIY, A.P., prof. [deceased]; VOYTKEVICH, S.A., kand.khim.nauk, retsentsent; SKVORTSOVA, N.I., kand.khim.nauk, spetsred.; KALMENS, R.I., red.; DOBUZHINSKAYA, L.V., tekhn.red.

[Production of essential oils] Tekhnologiya efirovaslichnogo proizvodstva. Moskva, Pishchepromizdat, 1958. 201 p. (MIRA 12:6)
(Essences and essential oils)

MASLIKOV, Vladimir Arkhipovich; GAVRILENKO, I.V., kand.tekhn.nauk,
retsensent; KALMENS, R.I., red.; KISINA, Ye.I., tekhn.red.

[Examples of calculations of equipment used in the production
of vegetable oils] Primery raschetov oborudovaniia proizvodstva
rastitel'nykh masel. Moskva, Pishchepromizdat, 1959. 225 p.
(MIRA 13:7)

(Oil industries--Equipment and supplies)

GAVRILENKO, Ivan Vasil'yevich, kand.tekhn.nauk, laureat Stalinskoy
premi; KAIMENS, R.I., red.; GOTLIB, E.M., tekhn.red.

[Equipment for the production of vegetable oils] Oborudovanie
dlia proizvodstva rastitel'nykh masel. Moskva, Pishchepromizdat,
1959. 409 p. (MIRA 13:1)
(Oil industries--Equipment and supplies)

FRIDMAN, Rudol'f Arkad'yevich; DAYEV, N.A., retsenzent; KIPORINKO,
S.F., retsenzent; KALENOVA, K.I., spetsred.; KALMENS, R.I.,
red.; SOKOLOVA, I.A., tekhn.red.

[Toiletries; manufacture, use, and analysis] Kosmetika;
proizvodstvo, primeneniye, analiz. Izd.2., perer. i dop.
Moskva, Pishchepromizdat, 1959. 412 p. (MIRA 12:4)
(Toilet preparations)

KALININ, I.

BEREZOVSKIY, Vladimir Mironovich; NAZAROV, I.N., akademik, retsenzent;
PREOBRAZHENSKIY, N.A., prof., doktor khim.nauk, zasluzhennyy
deyatel' nauki, spetsred.; KALMENS, R.I., red.; BELIKOVA,
L.S., red.

[Chemistry of vitamins] Khimiia vitaminov. Moskva, Pishcha-
promizdat, 1959. 599 p. (MIRA 13:1)
(VITAMINS)

AVDEYEVA, Aleksandra Vasil'yevna, prof.; OSTROVSKIY, A.I., prof.,
retsenzent; KRASIL'SHCHIKOV, A.I., doktor khim. nauk, retsenzent;
KALMENS, R.I., red.; KISINA, Ye.I., tekhn. red.

[Metal corrosion in the food industry]Korroziia metallov v pishche-
voi promyshlennosti. Moskva, Pishchepromizdat, 1962. 209 p.
(MIRA 15:12)

(Food industry--Equipment and supplies)
(Corrosion and anticorrosives)

DENSHCHIKOV, Mikhail Tikhonovich; KALMENS, R.I., red.; ZARSHCHIKOVA,
L.N., tekhn. red.

[Use of industrial waste waters for the production of food
yeasts] Ispol'zovanie promyshlennykh stochnykh vod dlia
proizvodstva kormovykh drozhshei. Moskva, Pishchepromizdat,
1963. 22 p. (MIRA 16:12)

(Industrial wastes) (Yeast)

DENSHCHIKOV, Mikhail Tikhonovich, kand. tekhn.nauk; KALMENS, R.I.,
red.; ZARSHCHIKOVA, L.N., tekhn. red.

[Present-day state of the brewing industry in Czechoslovakia]
Sovremennoe sostoianie pivovarennoi promyshlennosti
Chekhoslovakii. Moskva, Pishchepromizdat, 1963. 139 p.
(MIRA 16:11)

(Czechoslovakia—Brewing industry)

TYUTYUNNIKOV, Boris Vasil'yevich, doktor tekhn. nauk, prof.;
NAUMENKO, Petr Vasil'yevich; TOVBIN, Isaak Moiseyevich;
FANIYEV, Garegin Georgiyevich; KALMENS, R.I., red.;
KISINA, Ye.I., tekhn. red.

[Technology of the processing of oils and fats] Tekhnologiya pererabotki zhirov. [By] B.N.Tiutiunnikov i dr. 3., perer. i dop. izd. Moskva, Pishchepromizdat, 1963. 594 p.
(MIRA 17:2)

AZRILEVICH, Moisey Yakovlevich, inzh.; KRASNYUK, G.M., inzh.,
retsenzent; ZHUKOV, G.I., inzh., retsenzent; KALMENS,
R.I., red.

[Equipment of sugar-beet plants] Oborudovanie sveklo-
sakharnykh zavodov. Moskva, Pishchevaia promyshl.,
1964. 282 p. (MIRA 17:12)

1. Gosudarstvennyy Komitet po mashinostroyeniyu pri
Gosplane SSSR (for Krasnyuk). 2. Krasnodarskiy tekhnikum
sakharnoy promyshlennosti (for Zhukov).

KAL'MENS, V.Ya., inzh.

Dynamic stresses in moving blades caused by periodic and momentary loads and concentrated impulses. [Trudy] LMZ no.6:242-248 '60.

(MIRA 13:12)

(Blades---Vibration)

Trudy Leningrad Metallicheskiy zavod. Otdel tekhnicheskoy informatsii

Issledovaniya elementov parovykh i gazovykh turbin i osevykh kompressorov, Moscow, Mashgiz, 1960 488p.

The collection contains 43 reports which present the methods and results of investigations of the working process and the statics and dynamics of the operation of turbine and axial-flow compressor components. Also described are test setups, devices, and apparatus.

KALININS, V. Ya., inzh.; KREIVAN, L. O., inzh.

Critical speeds of rotors of high-power turboaggregates. [Trudy]
LMZ no.6:249-264 '60. (MIRA 13:12)
(Impellers)

S/114/63/000/003/001/005
E191/E435

AUTHOR: Kal'mens, V.Ya., Engineer

TITLE: Simulating method for vibration phenomena in the oil film during rotor operation

PERIODICAL: Energomashinostroyeniye, no.3, 1963, 9-12

TEXT: Self-excited vibrations arising due to forces in the bearing oil film of high speed rotors are not easily predicted by analysis owing to the indefinite limits of the load carrying oil layer, the importance of oil inertia forces and inaccuracies in predicting the axial outflow. On the assumption that the oil film is thin, its flow laminar and the pressure across it uniform, the conditions for simulation by scale model experiments are sought by examining the differential equations. The conditions of similarity between the full-scale and the model rotors include identical distributions of the rotor mass, its moment of inertia and the moment of inertia of the shaft cross-section in bending. Two ratios, determining the dynamic and elastic similarity of the rotors respectively, must be identical so that the fundamental critical speed is the same. Nine further parameters must be identical to ensure complete similarity. Among the consequences, Card 1/2

Simulating method ...

S/114/63/000/003/001/005
E191/E435

when the full scale and model rotor bearings are lubricated with the same oil, are the requirements of an identical rotational speed and an identical absolute value of the bearing clearances. These conditions are easily fulfilled in a reduced scale laboratory model. It is shown that a slight increase in the temperature of the oil fed to the model bearings is advisable. In a numerical example, illustrating the analysis of this paper, a model rotor has the following values (full scale values in brackets). Journal diameter: 140 mm (360), rotor length: 1610 mm (3430), shaft diameter at mid-span: 95 mm (430), rotor weight: 419 kg (18313), moment of inertia of the largest disc: 18 kg cm sec² (3550). In a discussion of the analysis, it is explained that the absence of full geometric similarity leading to easier laboratory simulation is justified by the particular nature of the problem with emphasis on the small thickness of the oil film. There are 3 figures and 1 table.

Card 2/2

ACCESSION NR: AP4029216

S/0114/64/000/004/0028/0030

AUTHOR: Kal'mens, V. Ya. (Engineer)

TITLE: Effect of web and hub placement on the bending and critical speed of a turbine rotor

SOURCE: Energomashinostroyeniye, no. 4, 1964, 28-30

TOPIC TAGS: turbine, turbine shaft, turbine shaft stiffness, turbine rotor, turbine rotor critical speed, turbine rotor bending

ABSTRACT: A shaft model (1/20 natural size) with 7-13 hubs was bent and the resulting deformation was compared with that of a shaft without the hubs. The models had different B/d (0.28, 0.4, 0.6, 0.8, 1.0), D/d (1.2-2.0), and Δ/d (0.001 and 0.0003), where B is the hub width, d is the shaft diameter, D is the hub diameter, Δ is the tightness (negative allowance). By estimating the moments of inertia with and without the hub and taking their ratio, the shaft

Card 1/2

ACCESSION NR: AP4029216

stiffening was determined. It was found that: (1) Rotor disks have a very substantial and speed-depending effect on the shaft bending and critical speed; (2) Since the effect of the web is secondary, calculations may be based on the results of tests with simple hubs; (3) The estimation of rotor-vibration frequency at a specified speed should allow for the loss of hub-on-the-shaft tightness due to centrifugal force. Orig. art. has: 5 figures and 6 formulas.

ASSOCIATION: Leningradskiy metallicheskiy zavod (Leningrad Metal Plant)

SUBMITTED: 00

DATE ACQ: 01May64

ENCL: 00

SUB CODE: PR

NO REF SOV: 004

OTHER: 001

Card 2/2

KAIMET, R., kand. sel'skokhoz. nauk

Trace element fertilizers in the fields of Estonia, Zemledelie 26
no.9:72-75 S '64. (MIRA 17:11)

1. Estonskiy nauchno-issledovatel'skiy Institut zemledeliya i
melioratsii.

KAL'MET'YEV, Kh. S. ; TUROVTSEV, M. M.

Acorns

Planting germinant acorns. Les i step' 5, No. 2, 1953.

9. Monthly List of Russian Accessions, Library of Congress, June 1953, Unclassified.

GRITSEV, N.D.; KAL'MET'YEVA, R.A.

Paraffin tar deposition in petroleum pipeline systems. Neft, khoz.
43 no.9:51-54 S '65.

(MIRA 18:10)

KNIZHNIK, G.G.; SHENKAR, A.S.; KAL'MENYEV, A.F.

Design of frames, statically indeterminate relative to the total lateral forces, by means of the EMES-7 model. Vych. i org. tekhn. v stroi. i proekt. no.3:51-56 '64. (MIRA 18:10)

1. Kiyevskoye otdeleniye Vsesoyuznogo gosudarstvennogo proyektirovogo instituta stroitel'stva elektrostantsiy.

KAL'MIUS, A.A.

Centrifugal machine for casting bronze-bushing blanks. Sbor.
rats. predl. vnedr. v proizvod. no.2:56 '61. (MIRA 14:7)

1. Novo-Moskovskiy metallurgicheskiy zavod.
(Centrifugal casting)

ZAGZHDA, V.P.; TIKHONOVA, L.A.; SOKOLOV, V.I.; MARANTS, A.O.; RYBNIKOV, V.A.;
KAZAKEVICH, S.S.; SARMIN, A.P.; GAVRILOV, A.I.; NOVIKOV, A.N.;
NECHEPORENKO, M.A.; KALIMOVA, Kal'mova; FEDOROV, O.A., redaktor;
FEL'DGANDLER, G.G., redaktor; ROZENTSVEYG, Ya.D., redaktor izdatel'-
stva; MIKHAYLOVA, V.V., tekhnicheskij redaktor

[Handbook on refractory elements and materials] Spravochnik na
ogneupornye izdeliia, materialy i syr'ie. Sostavlén po gosudarstven-
nym standartam i tekhnichesim usloviyam. Moskva, Gos. nauchno-
tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1956. 195 p.
(MLRA 10:2)

1. Russia (192)- U.S.S.R.) Ministerstvo chernoy metallurgii.
2. Leningradskiy institut ogneporov. (for Zagzhda, Tikhonova, Sokolov,
Marants, Rybnikov, Kazakevich, Sarmin, Gavrilov, Novikov, Nepochorenko,
Kal'mova.

(Refractory materials)

POPOV, V.M.; SHABALIN, V.V.; KALMURZAYEV, K.Ye.

First All-Union Conference on Deep-Sea Deposits. Izv. AN Kir.
SSR. Ser. est. i tekhn. nauk 4 no.3:141-143 '62. (MIRA 15:11)
(Deep-sea deposits)

KALMURZAYEV, K.Ye.

Concretions in the Cambrian-Ordovician sediments of the Sarydzhaz
region. Zap. Kir. otd. Vses. min. ob-va no.3:67-80 '62.
(MIRA 17:11)

ADYCHEV, M.M.; ADYCHEV, E.Ye.

Sedimentary-diagenetic origin of uranium mineralization in
coal-silica-schist formation. Geol.rud.mestorozh. 7 no.4:16-
25 Jan-Feb '65. (MIRA 18:8)

ADYSHEV, M.M.; SHABALIN, V.V.; KALMURZAYEV, K.Ye.

Dispersed elements in Cambrian sediments of the Dzhety-Tau (central Tien Shan). Dokl. AN SSSR 151 no.2:422-425 J1 '63. (MIRA 16:7)

1. Institut geologii AN Kirginskoy SSR. Predstavleno akademikom N.M.Strakhovym.

(Dzhety-Tau--Trace elements)

KAL'MUSHEVSKIY, I.I.

Linear equivalence of Volterra operators. Usp. mat. nauk
20 no.6:93-97 N-D '65. (MIRA 18:12)

1. Submitted June 30, 1964.

KALMUTCH, G.

Country: Rumania
 Category: FERTILIZING PLANTS COMMERCIAL, Oleiferous, Sugar-
 Title: The Effect of Certain Growth Stimulants on Sugar
 Root Productivity
 Author: Gires, T.B.; Belif, G.; Ionescu, I.; Kalmutchi, G.
 Institution: Timisoara Inst. of Agronomy
 Title: The Effect of Certain Growth Stimulants on Sugar
 Root Productivity
 Orig. Pub. Anuarul. lucrur. stint. Inst. agron. Timisoara,
 Bucuresti, 1957, 113-110
 Abstract: Sugar beet seeds were treated for 15 minutes in
 2,4-D solutions (in concentrations of 5 and 10
 mg/l in pure form and with the addition of 100 mg
 per liter of uranyl acetate), α -naphthylacetic acid
 (0.5 and 1 mg/l) and β -naphthylacetic acid (50 and
 100 mg/l). The stimulants were first dissolved in
 small amounts of alcohol and brought up to the
 necessary concentrations with water. In two months
 after planting the beets were side-dressed with P,
 *Vohn, I.
 Cards: 1/3

Abstract: In doses of 50 and 100 kg/ha. Red treatment with
 2,4-D yielded a reduced root harvest which was
 especially noticeable with the addition of uranyl
 acetate. Some increase in root yield was noted
 with α -naphthylacetic acid and β -naphthylacetic
 acid in comparison with the control. Treatment
 with 2,4-D (5 mg/l) increased the saccharinity by
 0.7%, and in concentration of 10/mg/l by 0.2%.
 The addition of uranyl acetate cut the action of
 pure 2,4-D nearly down to the level of the control.
 Cards: 2/3

Abstract: Saccharinity in the variants treated with α -naphthyl-
 acetic acid and β -naphthylacetic acid was 0.2-0.9%
 higher than the control.--V.F. Zhelezovich

ROMANIA/Farm Animals. Poultry.

Q

Abs Jour: Ref Zhur-Biol., No 17, 1958, 78814.

Author : ~~Kalmaychik, G.~~ Bosoanca, D.

Inst :

Title : Determination of the Concentration of Carotene
in the Yolk as a Means of Evaluating the Incubation
Qualities of Hens' Eggs.

Orig Pub: Anuarul lucrar, stiint. Inst. agron. Timisoara,
Ducuresti, 1957, 259-263.

Abstract: The authors propose, along with the evaluation of
the incubation qualities of eggs according to size,
external appearance and, during preincubation,
candling, to determine the concentration of caro-
tene in the egg yolk. Determination of carotene
was carried out by Rachevskiy's method, which is

Card : 1/2

Card : 2/2

RUMBLE/Farm Animals. Domesticated Powl.

Libs Jour: Ref Zhur-Biol., No 20, 1958, 92641.

Author : Girda, T.D., Kalatchi, G., Descanea, D.

Inst : Timisoara Scientific Institute of Agronomy.

Title : Determination of Changes in the Concentration of Carbon Dioxide in Large Incubators to Secure the Optimum Incubation Conditions.

Orig Pub: Anuarul lucrar. stiint. Inst. agron. Timisoara, Bucuresti, 1957, 265-271.

Abstract: To check on the adequacy of gaseous exchange in the large B-60 type incubators (containing 64,000 egg spaces) the authors investigated the air in the incubators on various days of incubation and the eggs for variations in their carbon dioxide content. The gas

Card : 1/3

KALMUTCHI, G.; NICULESCU, C.

Solid catalysts used in the manufacturing of monomers for
synthetic rubber. Rev chimie Min petr 13 no.6:345-350 Je '62.

L 43092-66 EWP(k)/EWT(m)/T/EWP(1)/111 111(1) 111(1)

ACC NR: AR6014385 (A,N)

SOURCE CODE: UR/0137/65/000/011/1058/1058

AUTHORS: Babiy, V. S.; Kalmutskiy, V. S.

TITLE: Effect of mechanical deformation on the electrode potential of steel

SOURCE: Ref. zh. Metallurgiya, Abs. 111406

REF SOURCE: Sb. Materialy dokl. 1-y Nauchno-tekhn. konferentsii Kishinevsk. politekhn. in-ta. Kishinev, 1965, 85-86

TOPIC TAGS: material deformation, alloy steel, electrode potential / St. 3 alloy steel

ABSTRACT: Structural changes of the surface resulting from mechanical treatment are reflected in the magnitude of the electrode potential. The electrode potentials of a surface under stress are more negative than stationary potentials of a steel annealed in vacuum. Thus, for steel St. 3 φ_{stat} in chloride electrolyte is -475 to -470 mv (normal calomel electrode 5 (NKE)) and -436 to -445 mv (NKE). According to x-ray structural data, the surface stresses decrease during anodic dissolution. This is reflected in the magnitude of the stationary potentials, determined after anodic etching. After anodic dissolution φ_{stat} for steels

Card 1/2

UDC: 669.14.018.26:539.37

L 43092-66

ACC NR: AR6014385

annealed in vacuum in 48% H_3PO_4 solution is approximately -490 to -520 mv (NKE) and for the deformed steel -450 to -470 mv (NKE) respectively. Comparison of anodic polarization data indicates that the magnitude of anodic polarization of deformed steels is larger than that of annealed steels. V. Olenicheva /Translation of abstract/

SUB CODE: 11

Card 2/2 *gl*

L 43093-66 ENT(m)/T/EWP(t)/ETI IJP(c) JD/WB

ACC NR: AR6014384 (A,N)

SOURCE CODE: UR/0137/66/000/011/I057/I057

AUTHORS: Petrov, Yu. N.; Mamontov, Ye. A.; Parsadanyan, A. S.; Vyrlan, A. I.;
Stanko, A. A.; Kalmutskiy, V. S.

TITLE: Influence of thermal treatment on the electrode potential of steel

SOURCE: Ref. zh. Metallurgiya, Abs. 11I396

REF SOURCE: Sb. Materialy dokl. 1-y Nauchno-tekhn. konferentsii Kishinevsk.
politekhn. in-ta k Kishinov, 1965, 86-87

TOPIC TAGS: steel, carbon steel, electrode potential / St 45 steel

ABSTRACT: On the basis of comparison of the magnitude of stationary potentials of quenched and nonquenched specimens in a working electrolyte of iron-plating solution and 30% sulfuric acid solution, it is concluded that potentials of the quenched specimens are more positive than those of the nonquenched specimens. The behavior of specimens (St 45 quenched) during anodic treatment in 30% sulfuric acid solution shows that the more intensive passivation occurs for quenched specimens. The change of the stationary potentials of quenched carbon steel towards electropositive values is explained by the presence of residual

Card 1/2

UDC: 669.14.018.26:621.78

L 43093-66

ACC NR: AR6014384

austenite.. Experience in the application of the iron-plating process shows that obtaining a strong durable surface on quenched parts is associated with greater difficulties as compared with nonquenched parts. I. Tulupova /Trans-lation of abstract/

SUB CODE: 11

Card 2/211LP

KALMYCHIN, IVAN FEDOROVICH

N/S
755.11
.K1

KALMYCHIN, IVAN FEDOROVICH

UCHET, KAL'KULYATSIYA I OTCHETNOST' V KHOZYAYSTVENNYKH YEDINITSAKH ZHELEZNYKH DOROG
(ACCOUNTING, CALCULATION AND RECORDING IN ECONOMIC UNITS OF RAILROADS, BY I. F.
KALMYCHIN (1) B. P. TSAREV. MOSKVA, TRANZHELDORIZDAT, 1956.

103 P. TABLES.

BIBLIOGRAPHY: P. 102

GRIGOR'YEV, Aleksandr Nikolayevich; KALMYCHIN, Ivan Fedorovich;
FLEYSHMAN, Feliks Moiseyevich; KOITUNOVA, M.P., red.

[Analysis of the administrative operations of the line
enterprises of a railroad] Analiz khoziaistvennoi deiatel'-
nosti lineinykh predpriatii zheleznoi dorogi. Moskva,
Transport, 1965. 294 p. (IRA 18:4)

S/229/62/000/004/003/003
I006/I206

AUTHORS: Isakov, V.V., Kalmychkov, A.P., and Frohorov, B.F.,
Engineers

TITLE: On the experience of design and fabrication of plastic
wheel house for motor ship "Raketa"

PERIODICAL: Susdostroyeniye, no.4, 1962, 58-65

TEXT: Considering the relatively small dimensions of the
wheel house its complicated form and the low strengths requirements,
the polyether plastic material LU-132 was chosen for its construc-
tion, with ПН -1 (PN-1) glass fiber as filler. A detailed descrip-
tion of design requirements, wheel house design, preparation of
jigs and fixtures, wheel house assembly and quality control. There
are 9 figures and 2 tables.

Card 1/1

S/229/62/000/011/002/002
E191/E435

AUTHORS: Kalmychkov, A.P., Engineer, Prokhorov, B.F., Engineer
TITLE: Tests of a plastic deckhouse of the motor vessel
"Raketa"

PERIODICAL: Sudostroyeniye, no.11, 1962, 58-63

TEXT: This is a continuation of a previous article (Sudostroyeniye, no.4, 1962) in which the design of a plastic deckhouse was discussed. The deckhouse material, a glass cloth reinforced plastic, was studied by tests of specimens and joints. The tensile and bending strengths were measured in specimens with the warp or weft of the cloth along the specimen, and in specimens with a crossed lay-up of the cloth layers. The thickness ranged between about 1.8 and 3.3 mm. The tensile strength ranged from 1830 to 2850 kg/cm². Deflections were measured and Young's modulus values derived showing considerable variation (77000 to 137000 kg/cm²) between different types and thicknesses of specimens, generally increasing with thickness and highest when the warp is along the specimen. Specimens cut from material prepared under shop conditions were compared with laboratory
Card 1/2

S/229/62/000/011/002/002

E191/E435

Tests of a plastic deckhouse ...

specimens showing a drop of Young's modulus in tension from 120000 to 84000 kg/cm², a rise in Poisson's ratio from 0.11 to 0.27, a drop of tensile strength from 2100 to 1000 kg/cm² and small variations in other properties. After 2 hours boiling and 30 minutes in cold water, the loss of strength was about 20%. The ratio by weight of the glass cloth to the resin was about 1:1. Static tests were carried out on complete elements of the deckhouse such as the roof panel and the aerial attachment fitting. The permissible stress was assumed to be 410 kg/cm². It is considered that in view of the unknown fatigue properties, an actual measured stress reaching 50% of the permissible static stress is excessive. Vibration tests by exciting vibrations with an impact and measuring the decay with mechanical vibrographs have shown the plastic deckhouse to have 4 times the damping of its metal predecessor. Tests have shown that, owing to its small thickness, the nature of the material has little effect on sound insulation. There are 3 figures and 6 tables.

Card 2/2

KALMYCHKOV, A.P., inzh.; PROKHOROV, B.F., inzh.

Strength of glued joints. Sudostroenie 29 no.5:38-41 My
'63. (MIRA 16:9)
(Gluing) (Hulls (Naval architecture))

KALMYCHKOV, A.P., inzh.

Effect of the anisotropy of glass reinforced plastics on the supporting
power of joints. Sudostroenie 30 no.8:31-32 Ag '64. (MIRA 18:7)

I 22164-66 ENT(m)/EWP(v)/EWP(j)/T WH/RM

ACC NR: AP6007625

SOURCE CODE: UR/0229/66/000/001/0076/0079

AUTHOR: Kalmychkov, A. P.

ORG: None

TITLE: Some characteristic properties of glued joints

SOURCE: Sudostroyeniye, no. 1, 1966, 76-79

TOPIC TAGS: shipbuilding engineering, glue

ABSTRACT: The use of glues for joint work in shipbuilding is discussed and some considerations on the strength of joints and various stresses are presented. The strength of a butt joint glued together by means of two cover straps is only about 50% greater than that of a joint with one strap. The variation of tangent shearing stresses in single and double strap connections of various lengths was illustrated. The strength diminishes with the increase of the thickness of a butt joint due to the action of tangent shearing and transversal rupturing stresses. The distribution of stresses was shown in a diagram. One of the weakest points of glued joints is the rupture or breaking away of glued parts because the stresses are not uniformly distributed, especially in shipbuilding practice. The stresses caused in a joint by transverse

Card 1/2

UDC: 629.12.611

L 22164-66

ACC NR: AP6007625

O

loads were considered and the effect of bending on the distribution of tangent shearing stress was graphically represented. Under bending conditions, the bearing capacity of the joint increases with the length of straps and the number of laps. The increase in strength does not exceed 25% if the second strap is added. A theoretical analysis for calculations of various stresses was also presented under assumptions that the deformation of glue and materials follows Hooke's law, that the thickness of the joint is uniform, the transversal stresses are uniformly distributed, the materials are isotropic and the straps are absolutely rigid with respect to bending. The effect of tensile forces on the joint was illustrated in a graph showing a distribution of transversal and tangent stresses in a butt joint between two straps. The effect of the strap length on the magnitude and distribution of transversal and tangent stresses was also investigated and the curves were plotted. Orig. art. has: 6 graphs.

SUB CODE: 13 / SUBM DATE: None / ORIG. REF: 004 / OTH REF: 000

Card 2/2dd

AUTHOR: Kalmychkov, I.N., Engineer SOV-91-58-4-10/29

TITLE: Gradual Evaporation in Multi-Drum Boilers Installed in Industrial Boiler Rooms (Stupenchatoye ispareniye v mnogobarabannykh kotlakh promyshlennykh kotel'nykh)

PERIODICAL: Energetik, 1958, Nr 4, pp 11-12 (USSR)

ABSTRACT: In order to lower the drainage loss in "Babkok-Vil'koks" and "Shukhov" type sectional drum boilers, a 2-step, gradual evaporation system was carried out at the suggestion of the author. In "Babkok-Vil'koks" type sectional 2-drum boilers with front and rear screening of the furnace. One of the upper drums supplied a continuous water feeding and the other one a continuous drainage. The boilers had a steam pressure of 12 to 16 atm and an output of 9 to 12 tons per hour. By means of the gradual evaporation system, the salt content of the drainage was increased by 30 to 60% with normal steam quality. This resulted in the lowering of the drainage loss from 8-12 to 5-8%. In two unscreened 4-drum boilers of the "Shukhov" type, a 300 mm diameter mud collector was divided in two equal parts by a vertical partition. These boilers had a pressure of 8 atm and an output of 4 to 4.5 tons per

Card 1/2

SOV-91-58-4-10/29

Gradual Evaporation in Multi-Drum Boilers Installed in Industrial Boiler Rooms

hour. The salt content of the drainage was increased by 30 to 40% with normal steam quality. The drainage loss was reduced from 10-12 to 7-8%. There are 2 diagrams.

1. Boilers--Operation 2. Feed water

Card 2/2

KALMYCHKOV, I.N.; KLOCHKOV, V.N.; KORSH, A.M.

Standardization of the hydraulic and chemical systems of the heat
and electric power plants in sugar factories. Sakh.prom. 38 no.2:
32-34 F '64. (MIRA 17:3)

1. Khar'kovskoye neftepromyslovoye upravleniye "Ukrenergochermet".

KRASNIKOVSKIY, G.V., prof., red.; MALYSHEV, A.S., red.; VOROB'YEV, B.M., dots., kand. tekhn. nauk, red.; KALMYK, M.K., gornyy inzh., red.; ZHUKOV, V.V., kand. tekhn. nauk, otv. red.; SMIRENSKIY, M.M., red. izd-va; SABITOV, A., tekhn. red.

[Problems in mining engineering; collected articles on the occasion of the 70th birthday of Professor S.D.Sonin] Voprosy gornogo dela; sbornik statei, posviashchenyi 70-letiiu so dnia rozhdenia professora S.D.Sonina. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po gornomu delu, 1962. 402 p. (MIRA 15:5)

1. Zaveduyushchiy kafedroy razrabotki plastovykh mestorozhdeniy Moskovskogo gornogo instituta (for Krasnikovskiy). (Sonin, Semen Danilovich, 1891—) (Coal mines and mining)

KALMYK, M.K., gornyy inzh.

Correlative analysis of basic factors affecting labor productivity. Ugol' 39 no.6:49-53 ~~464~~ (MIRA 17:7)

PASHKOV, A.I.; KALMYK, V.A., red.; GERASIMOVA, Ye.S., tekhn. red.

[Economic law of the preferential growth of the production
of the means of production] Ekonomicheski zakon preimushchestvennogo
rosta proizvodstva sredstv proizvodstva. Moskva, Gosplanizdat, 1958. 231p.
(MIRA 11:11)

1. Chlen-korrespondent AN SSSR (for Pashkov).
(Economics)

YEVENKO, Ivan Andreyevich; KALMYK, V.A., red.; GERASIMOVA, Ye.S.,
tekhn.red.

[Present-stage problems of planning in the U.S.S.R.] Voprosy
planirovaniia v SSSR na sovremennom etape. Moskva, Gosplanizdat,
1959. 207 p. (MIRA 12:12)
(Russia--Economic policy)

STARODUBROVSKAYA, Vera Nikolayevna; YEVSTIGNEYEV, R.N., mladshiy nauchnyy
sotrudnik; KALMYK, V.A., red.; GERASIMOVA, Ye.S., tekhn.red.

[Economic union of the working class and the peasantry in the
European people's democracies] Ekonomicheskiy soiz rabochego
klassa i krest'ianstva v evropeiskikh stranakh narodnoi
demokratii. Moskva, Gosplanizdat, 1959. 250 p. (MIRA 12:6)

1. Sektor stran narodnoy demokratii Instituta ekonomiki AN SSSR
(for Yevstigneyev).
(Europe, Eastern--Economic conditions)

GREBTSOV, G.I., red.; KARPOV, P.P., red.; KALMYK, V.A., red.; KHOLIN,
I.A., red.; PONOMAREVA, A.A., tekhn.red.

[Material balances in the national economic plan] Material'nye
balansy v narodnokhoziaistvennom plane. Moskva, Gosplanizdat,
1960. 248 p. (MIRA 13:8)
(Russia--Economic policy)

BUNICH, Pavel Grigor'yevich; KALMYK, V.A., red.; PONOMAREVA, A.A.,
tekhn.red.

[Capital assets of socialist industry] Osnovnye fondy
sotsialisticheskoi promyshlennosti. Moskva, Gosplanizdat,
1960. 302 p. (MIRA 13:10)
(Russia--Industries)

TURETSKIY, Sh.Ya., prof., red.; KALMYK, V.A., red.; GERASIMOVA, Ye.S.,
tekhn.red.

[Potentials for economizing in the national economy of U.S.S.R.]
Rezervy ekonomii v narodnom khoziaistve SSSR. Moskva, Gos-
planizdat, 1960. 307 p. (MIRA 13:9)
(Industrial management)

MILYKH, Anatoliy Filippovich; NAZAROV, Fedor Nikolayevich; GERASIMUK, G.N.,
spets. red.; KALMYK, V.A., red.; GERASIMOVA, Ye.S., tekhn. red.

[Planning of design and research operations in construction] Planirovanie proektno-izyskatel'nykh rabot v stroitel'stve. Moskva, Gos. izd-vo planovo-ekon. lit-ry pri Gosekonomsoвете SSSR, 1961.
(MIRA 14:7)
72 p.

(Building research)

BREYEV, Mikhail Viktorovich; KALMYK, V.A., red.; PONOMAREVA, A.A.,
tekhn.red.

[Law of planned and proportional development, and planning of
the national economy] Zakon planomernogo proporsional'nogo
razvitiia i planirovanie narodnogo khoziaistva. Moskva, Gos-
planizdat, 1961. 82 p.
(Russia—Economic policy) (MIRA 14:6)

CHERNYAVSKIY, Yakov Mikhaylovich; KALMYK, V.A., red.; PONOMAREVA, A.A.,
tekhn. red.

[Balance of the expenditure of working time in a plant; the work
practice of enterprises of the Krasnoyarsk Economic Council] Balans
zatrata rabochego vremeni na zavode; opyt raboty predpriatii Krasno-
iarskogo sovnarkhoza. Moskva, Gos. izd-vo planovo-ekon. lit-ry,
1961. 87 p. (MIRA 14:8)

(Krasnoyarsk Territory—Time study)

SHKURKO, S.I., red.; KALMYK, V.A., red.; PONOMAREVA, A.A., tekhn. red.

[Improving the organization of wages] Sovershenstvovanie organizatsii zarabotnoi platy. Pod red. S.I. Shkurko. Moskva, Izd-vo ekon. lit-ry 1961. 173 p. (MIRA 14:10)

1. Moscow. Nauchno-issledovatel'skiy institut truda.
(Wage payment systems)

NOTKIN, Aleksandr Il'ich; KAIMYK, V.A., red.; PONOMAREVA, A.A., tekhn.
red.

[The pace and extent of socialist reproduction] Tempy i proporsii
sotsialisticheskogo vosproizvodstva. Moskva, Izd-vo ekon. lit-ry,
1961. 213 p. (MIRA 14:11)

(Russia—Economic conditions)

KUROTCHENKO, Vasilii Stepanovich; OSADA, Petr Akimovich; BEREZNOY, N.I.,
spets. red.; KALMYK, V.A., red.; LISOV, V.Ye., red.; KHOLIN, I.A.,
red.; GERASIMOVA, Ye.S., tekhn. red.

[Methodology for calculating the productive capacity of an industrial
enterprise] Proizvodstvennaia moshchnost' promyshlennogo predpriiatiia;
metodika rascheta. Moskva, Gos.izd-vo planovo-ekon. lit-ry, 1961.
279 p.

(Industrial capacity)

PETROSYAN, K.A., kand. ekon. nauk, red.; KALMYK, V.A., red.; YEFANOVA,
L.A., red.; PONOMAREVA, A.A., ~~tekh.~~ red.

[Utilizing capital assets in U.S.S.R. industries] Ispol'zovanie
osnovnykh proizvodstvennykh fondov v promyshlennosti SSSR. Pod
red. K.A.Petrosiana. Moskva, Izd-vo ekon. lit-ry, 1962. 210 p.
(MIRA 15:3)

1. Moscow. Nauchno-issledovatel'skiy ekonomicheskii institut.
(Capital)

MEKRASOVSKIY, Yakov El'konovich; RYMAR, Izrail' Mironovich; KALMYK,
M.K., otv.red.; ZHUKOV, V.V., red.isd-va; SABITOV, A., tekhn.
red.; SHKLYAR, S.Ya., tekhn.red.

[Rapid development mining] Opyt skorostnogo provedeniia pod-
gotovitel'nykh vyrabotok. Moskva, Gos.nauchno-tekhn.isd-vo
lit-ry po gornomu delu, 1960. 92 p. (MIRA 13:7)
(Coal mines and mining)

ZABELIN, Nikolay Nikolayevich; KALMYK, V.A., red.; RYSKO, S.Ya., red.;
TOKER, A.M., tekhn.red.

[Significance of labor reserves for the national economy]
Narodnokhoziaistvennoe znachenie gosudarstvennykh trudovykh
rezervov. Moskva, Vses.uchebno-pedagog.izd-vo Trudreservizdat,
1959. 90 p. (MIRA 12:10)
(Labor supply)

BORISOV, Pavel Aref'yevich, doktor ekonom.nauk; ZLOTHIKOVA, Lyudmila
Grigor'yevna; KALMYK, V.A., red.; PONOMAREVA, A.A., tekhn.red.

[Labor productivity in the petroleum refining industry of the
U.S.S.R.] Proizvoditel'nost' truda v neftepererabatyvaiushchei
promyshlennosti SSSR. Moskva, Gosplanizdat, 1959. 118 p.
(MIRA 12:7)

(Petroleum--Refining)

(Labor productivity)

SONIN, Mikhail Yakovlevich; KALMYK, V.A., red.; PONOMAREVA, A.A.,
tekhn.red.

[Reproduction of the labor force in the U.S.S.R. and balanced
allocation of work] Vospromozvodstvo rabochai sily v SSSR i
balans truda. Moskva, Gosplanizdat, 1959. 367 p. (MIRA 13:4)
(Labor and laboring classes)

KALMYKINA, Ye.M. (Alma-Ata); GORBUNOV, A.P. (Alma-Ata)

Destruction of a mountain lake; a mud torrent on the Issyk.

Priroda 53 no.6:81-84 '64.

(MIRA 17:4)

KAVETSKIY, S.P.; KALMYNKINA, Ye.M.

Midflow on the Issyk River on July 7, 1963. Vest. Mosk. un.
Ser. 5: Geog. 19 no.2:77-80 Mr-Ap '64. (MIRA 17:4)

KALMYKOV, A. A. (Noril'sk)

"The incomplete utilisation of Noril'sk ores and changes in the flowsheet at the Noril'sk Beneficiation Works"

report presented at the 4th Scientific and Technical Session of the Mekhanchbr Inst, Leningrad, 15-18 July 1958

KALMYKOV, A.; PONOMAREV, Y.

Multipurpose attachments with interchangeable parts. IUn.tekh.
3 no.7:22-23 J1 '60. (MIRA 13:8)

1. Zamestitel' direktora Zavoda universal'no-sbornykh prispособleniy
i instrumentov (for Kalmykov). 2. Glavnyy konstruktor zavoda
universal'no-sbornykh prispособleniy i instrumentov (for Ponomarev),
(Machine tools--Attachments)

KALMYKOV, A., rabochiy-obrubschchik (Stalingrad); MURUMAYEV, S. (Baku);
MAVLYUTOVA, R.; SHCHEBLANOV, N.; SAVENKOV, F.; KADESHOVA, R.;
CHICHIKINA, N.; LYETSEV, V.; ROZHENKO, N. (Krasnoyarskiy
krai); SUKHORUKOV, Ya.; GAYDIK, P. (g.Gor'kiy); KALMYKOV, A.
(Kostroma).

Letters to the editors. Sov. profsoiuzy 17 no. 3:42-47 F '61.
(MIRA 14:2)

1. Direktor sredney shkoly No. 17, Chelyabinsk (for Mavlyutova).
2. Predsedatel' Belgorodskogo obkoma profsoyusa rabochikh pishchevoy
promyshlennosti (for Shcheblanov). 3. Predsedatel' prezidiuma
postoyanno deystvuyushchego proizvodstvennogo soveshchaniya
tselkha kholodnoy shtampovki zavoda "Rostsel'mash" (for Savenkov).
4. Sekretar' Omyakonskogo raykoma profsoyusa rabochikh.
(Trade unions)

KALMYKOV A.A.

109-12-15/15

AUTHOR: Artemenkova, L.V.

TITLE: A Conference on Electron and Photo-electron Multipliers
(Konferentsiya po elektronnym i fotoelektronnym umnozhit-
elyam)

PERIODICAL: Radiotekhnika i Elektronika, 1957, Vol.II, No.12,
pp. 1552 - 1557 (USSR)

ABSTRACT: A conference took place in Moscow during February 28 and
March 6, 1957 and was attended by scientists and engineers
from Moscow, Leningrad, Kiev and other centres of the Soviet
Union. Altogether, 28 papers were read and discussed. The
papers were as follows:

- 1) B.M. Stepanov - "Some Problems of the Theory and Design of
Electron Multipliers".
- 2) Ye.V. Yeliseyev, I.S. Ipatkin, A.A. Kalmykov, K.V. Mikerov
and B.M. Stepanov gave some experimental data on electron
multipliers operating at large currents and voltages.
- 3) P.V. Timofeyev and Ye.G. Kormakova - "Electron Multipliers
of VEI (All-Union Electro-technical Institute)".
- 4) G.S. Vil'dgrube delivered a lecture on new types of
electron multipliers employing alloy emitters.
- 5) N.S. Khlebnikov - "New Types of Photo-electron Multipliers".

Card 1/4

A Conference on Electron and Photo-electron Multipliers 109-12-15/15

- 6) A.G. Berkovskiy et alii communicated some results on the new types of industrial photo-electron multipliers.
- 7) L.I. Andreyeva et alii - "Electron Optics of Certain Special Electron Multipliers and its Characteristics".
- 8) L.V. Artemenkova et alii reported some results on the study of the dispersion of electrons in electron multipliers and its effect on their resolving power.
- 9) L.B. Artemenkova and B.M. Stepanov - "Resolving Power of Electron Multipliers and its Experimental Determination"
- 10) A.G. Berkovskiy and L.G. Leyteyzen gave some results on the photo-electron multipliers suitable for the discrimination of short-time intervals.
- 11) G.A. Vasil'yev reported on an investigation of the transient characteristics of photo-multipliers by means of a micro-oscillograph.
- 12) A.I. Veretennikov considered the problem of the measurement of the transient characteristics of photo-multipliers.
- 13) E.Ye. Berlovich gave some data on the transient characteristics of the photo-multipliers, type $\Phi\text{Y-19}$.
- 14) A.I. Belonosov determined the current time lag in the photo-multipliers, type $\Phi\text{Y-19}$ and $\Phi\text{Y-25}$.

Card 2/4

109-12-15/15

A Conference on Electron and Photo-electron Multipliers

- 15) Yu.A. Nemilov et alii also studied similar problems.
- 16) A.A. Osherovich investigated the basic parameters of the photo-multipliers, type $\Phi 3Y$.
- 17) A.Ye. Chidakov proposed a simple method for the measurement of the amplitude resolution of the multipliers.
- 18) A.Ye. Melamid - "Parameters of Photo-electron Multipliers and the Methods and the Equipment for their Measurement".
- 19) B.M. Stepanov gave some data on the characteristics of a multi-channel electron multiplier operating at high currents.
- 20) B.M. Glukhovskoy and Ye.I. Tarasov - "The Activation Technology of Alloy Emitters with Various Photo-cathodes".
- 21) A.N. Pisarevskiy studied the problem of the application of the Soviet-made photo-multipliers to scintillation spectroscopy.
- 22) I.F. Barchuk reported on the application of a spectrometric photo-multiplier to a scintillation γ -spectrometer.
- 23) A.I. Akishin lectured on the special electron multipliers which could be employed for the counting of ions.
- 24) Ye.L. Stolyarova reported on the experiments with a spectrometric photo-multiplier with an NaJ(Te) crystal.
- 25) A.A. Samokhvalov and I.G. Fakidov communicated some data

Card 3/4

109-12-15/15

A Conference on Electron and Photo-electron Multipliers

on a simple scintillation counter, its characteristics and its application in γ -type flaw detection.

26) O.D. Kovrygin and G.D. Latyshev reported on the application of the photo-electron-multiplier, type Φ Y-12, to the scintillation spectrometry and γ -type flaw detection.

27) N.G. Kokina gave some data on the application of electron multipliers to the monitoring of ultra-violet radiation.

28) N.K. Pereyaslova investigated the spectroscopic characteristics of the Soviet-made multipliers.

Very short summaries of the above papers are given.

SUBMITTED: July 3, 1957

AVAILABLE: Library of Congress

Card 4/4

KAL MYKOV, A.A.

807/5247

PHASE I BOOK EXPLANATION

2.1.1.6)

Moscow. Institute of Physics and Chemistry

Moscow. Institute of Physics and Chemistry. (Some Problems in Experimental
Mechanics) Moscow, 1959. 85 p. 5,000 copies printed.

Physics, No. 1) Moscow, 1959. 85 p. 5,000 copies printed.

Sponsoring Agency: Ministry of Science and Mathematics, Moscow;
USSR.

Ed.: V.F. Semak, Candidate of Physical and Mathematical Sciences, Doctor;
Tech. Ed.: B.A. Saginova.

PURPOSE: This book is intended for physicists, chemists and other persons
interested in general problems of nuclear physics and physical and chemical
analysis.

CONTENTS: The collection contains 10 articles dealing with problems in elementary
particle acceleration, spectroscopy and crystal structure, physical and chemical
analysis and instrumentation in these fields. References and mention of previous
articles accompany each article.

Articles accompany each article.

Articles accompany each article.

Articles accompany each article.

Articles accompany each article.

Articles accompany each article.

Articles accompany each article.

Articles accompany each article.

Articles accompany each article.

Articles accompany each article.

Articles accompany each article.

Articles accompany each article.

Articles accompany each article.

Articles accompany each article.

Articles accompany each article.

Articles accompany each article.

Articles accompany each article.

Articles accompany each article.

Articles accompany each article.

Articles accompany each article.

Articles accompany each article.

Articles accompany each article.

Articles accompany each article.

Articles accompany each article.

Articles accompany each article.

Articles accompany each article.

Articles accompany each article.

Articles accompany each article.

Articles accompany each article.

Articles accompany each article.

Articles accompany each article.

Articles accompany each article.

Articles accompany each article.

Articles accompany each article.

Articles accompany each article.

Articles accompany each article.

Articles accompany each article.

Articles accompany each article.

Articles accompany each article.

Articles accompany each article.

Articles accompany each article.

Articles accompany each article.

Articles accompany each article.

Articles accompany each article.

Articles accompany each article.

Articles accompany each article.

Articles accompany each article.

Articles accompany each article.

Articles accompany each article.

Articles accompany each article.

Articles accompany each article.

Articles accompany each article.

Card 3/3

94/000
5-01-60

21(0)

AUTHORS:

Fogel', Ya. M., Kozlov, V. F.
Kalmykov, A. A., Muratov, V. I.

SOV/56-36-4-55/70

TITLE:

Direct Proof of the Applicability of the Adiabatic Criterion
of Massey for Processes With Double Charge Exchange (Pryamoye
dokazatel'stvo primenimosti adiabaticheskogo kriteriya Massi
k protsessam dvoynoy perezaryadki)

PERIODICAL:

Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1959,
Vol 36, Nr 4, pp 1312-1314 (USSR)

ABSTRACT:

As shown in a previous paper (Ref 1), the investigation of the
rate dependence of the cross sections of the double re-charge
of the ions H^+ and F^- leads to the result that the curves
 $\sigma_{1-1}(v)$ have two maxima for these ions. This fact is dealt
with according to Massey's adiabatic criterion; thus, a
maximum of such an inelastic process with a resonance defect
 ΔE must be observable if $a|\Delta E|/h\nu_{\max} \approx 1$. The occurrence
of two maxima in the curves $\sigma_{1-1}(v)$ for the processes $H^+ \rightarrow H^-$
and $F^- \rightarrow F^-$ can be explained either by the formation of slow
excited doubly-charged ions (at $H^+ \rightarrow H^-$) or by the existence
of impurity ions in excited metastable states in the primary

Card 1/4

Direct Proof of the Applicability of the Adiabatic Criterion of Massey for Processes With Double Charge Exchange SOV/56-36-4-55/70

beam (at $F^+ \rightarrow F^-$). The two maxima indicate that besides the process $F^+ \rightarrow F^-$ also the process $F^{+*} \rightarrow F^-$ develops, viz. with a different resonance defect but with the same a -value. For the purpose of clarifying these conditions the authors investigated the processes $B^+ \rightarrow B^-$ in Xe, Kr, and H_2 and $O^+ \rightarrow O^-$ in Xe. In the former case the curve $\sigma_{1,1}(v)$ had 3 maxima, in the latter it had two. Results:

Process	Excitation energy [ev] (calculated)	ion term	term energy [ev]
$B^+ - Kr$	5.6 ± 1.6	$2s2p \quad 3P^0$	4.6
$B^+ - Kr$	11.7 ± 1.6	$2p^2 \quad 3P$	12.1
$B^+ - Xe$	5.0 ± 0.9	$2s2p \quad 3P^0$	4.6
$B^+ - Xe$	11.3 ± 1.0	$2p^2 \quad 3P$	12.1

Card 2/4

Direct Proof of the Applicability of the Adiabatic Criterion of Massey for Processes With Double Charge Exchange SCV/56-36-4-55/70

Process	Excitation energy [ev] (calculated)	ion term	term energy [ev]
$B^+ - H_2$	4.4 ± 0.3	$2s2p \quad 3p^0$	4.6
$B^+ - H_2$	11.0 ± 2.0	$2p^2 \quad 3p$	12.1
$O^+ - Xe$	24.2 ± 0.5	$2s2p^4 \quad 2s$	24.4

The results obtained are discussed in detail. For $Li^+ \rightarrow Kr$, $Li^+ \rightarrow H_2$, and $Li^+ \rightarrow Ar$ the curves $\sigma_{1-1}(v)$ are given in form of diagrams. The additional maxima are where they must be according to Massey's criterion. Herefrom follows the identity of the a-values for processes of double re-charge of uncharged and charged ions. The results obtained by the investigation of the process $Li^+ \rightarrow Li^-$ provide direct proof of the applicability of Massey's criterion to such ions and also prove the correctness of the explanation of the nature of additional maxima of the curves $\sigma_{1-1}(v)$ in the processes investigated.

Card 3/4

Direct Proof of the Applicability of the Adiabatic Criterion of Massey for Processes With Double Charge Exchange SOV/56-36-4-55/70

There are 1 figure, 1 table, and 3 references, 2 of which are Soviet.

ASSOCIATION: Fiziko-tekhnicheskiy institut Akademii nauk Ukrainской SSR (Physico-technical Institute of the Academy of Sciences, Ukrainская SSR). Khar'kovskiy gosudarstvennyy universitet (Khar'kov State University)

SUBMITTED: December 20, 1958

Card 4/4

21(1)

AUTHORS:

Fogel', Ya. M., Kozlov, V. F.
Kalmykov, A. A.

SOV/56-36-5-4/76

TITLE:

On the Problem of the Existence of the Negative
Nitrogen Ion (K voprosu o sushchestvovanii
otritsatel'nogo iona azota)

PERIODICAL:

Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1959,
Vol 36, Nr 4, pp 1354-1356 (USSR)

ABSTRACT:

The authors of the present paper as well as Dukel'skiy and his collaborators have already investigated this problem and published a number of papers (Refs 1 - 5, 8 - 11) dealing with this subject. The results obtained by these investigations are first discussed. For the investigations, the results of which are discussed by the present paper, a mass-spectrometrical device, which is described by reference 13, was used. An N^+ beam of 34 kev coming from a high frequency ion source was led into the collision chamber, which was filled with krypton. A number of peaks was observed in the mass spectrum of the beam, of which the following were observed in the region

Card 1/3

of the peak corresponding to the mass 14: $12(C_{12}^+)$,

On the Problem of the Existence of the Negative
Nitrogen Ion

SOV/56-36-5-4/76

$^{13}(C_{13}^+ + C_{12}H^+)$, $^{15}(N_{15}^+ + N_{14}H^+)$, $^{16}(O_{16}^+ + C_{12}H_4^+ + N_{14}H_2^+)$,
 $^{17}(O_{16}H^+ + N_{14}H_3^+)$ and $^{18}(O_{16}H_2^+)$. The resolving power of the
mass monochromator sufficed for the purpose of clearly
separating the peak with the mass 14 from the neighboring
peaks. Analysis of the beam was carried out by means of a
magnetic analyzer. Measurement of the current of the
negative ions was carried out by means of a tube electrometer
having a sensitivity of 10^{-14} a/division mark. Already the
first experiment carried out with an ion beam ($m=14$) and
an amperage of 10^{-7} a showed that in the beam penetrating
the collision chamber there were some N^- -ions with $m=14$.
By the mass-spectrometer method a cross section for the
formation of an N^- -ion during passage of an N^+ through a
gas target of $3.2 \cdot 10^{-22}$ cm² was determined. Consideration of
 O_{1-1}^{14} finally resulted for the process $N^+ \rightarrow N^-$ in a cross

Card 2/3

On the Problem of the Existence of the Negative
Nitrogen Ion

SOV/56-36-5-4/76

section value of $1.9 \cdot 10^{-22} \text{ cm}^2$. The experiments carried out with H_2O^+ and the processes $\text{CH}_2^+ \rightarrow \text{CH}_2^-$ and $\text{NH}^+ \rightarrow \text{NH}^-$ at an energy of the positive ions of 34 kev in krypton are described. For the two last-mentioned processes cross sections of $5.3 \cdot 10^{-19}$ and $5.3 \cdot 10^{-18} \text{ cm}^2$ are obtained. The question was further investigated as to whether N_2^+ -ions occurred, but none were found, i. e. the cross section of the process $\text{N}_2^+ \rightarrow \text{N}_2^-$ should be smaller than $1.5 \cdot 10^{-22} \text{ cm}^2$. There are 17 references, 10 of which are Soviet.

ASSOCIATION: Fiziko-tekhnicheskiy institut Akademii nauk Ukrainской SSR
(Physico-Technical Institute of the Academy of Sciences,
Ukrainskaya SSR)

SUBMITTED: November 15, 1958
Card 3/3

APPROVED FOR RELEASE: 08/10/2001 A.: KENOV, V. G.
SAFRONOV, B. G.; MITIN, R. V.; ALEKSEEV, V. G. CIA-RDP86-00513R000620130003-6"

[High-frequency oscillations of a plasma filament
generated in a vacuum arc] Issledovanie vysokochastotnykh
kolebaniy plazmennogo shnura vakuumnoi dugi. Khar'kov,
Fiziko-tekh. in-t AN USSR, 1960. 215-226 p.

(MIRA 17:1)

(Plasma (Ionized gases)) (Electric arc)

10. 2000

26.23/1

28779

S/057/61/031/010/012/015

B109/B102

AUTHORS: Safronov, B. G., Mitin, R. V., Kalmykov, A. A., and
Konovalov, V. G.

TITLE: Investigation of high-frequency oscillations of the plasma
column of a vacuum arc

PERIODICAL: Zhurnal tekhnicheskoy fiziki, v. 31, no. 10, 1961, 1248-1252

TEXT: A vacuum arc is used for the experimental investigation of natural
oscillations of a plasma in the range of a few Mc/sec. Test arrangement
(Fig. 1): Two graphite electrodes (10 cm long and 50 and 5 mm,
respectively, in diameter) are placed in a water-cooled vacuum chamber
(20 cm in diameter, 60 cm long) which is enclosed by a solenoid. Maximum
magnetic field strength is 5000 oersteds. Electrode 4 is used for the
priming (1500 v). Operating parameters: pressure about $5 \cdot 10^{-6}$ mm Hg;
arc amperage 100 - 300 a; arc length L_2 - 50 cm; arc voltage V (volt)
 $= 47 + 0.6 L(\text{cm})$. The high-frequency oscillations are picked up by the
magnetic probes 1, 2, 3 (Fig. 1) and are recorded with an OK-17M (OK-17M)
oscilloscope. Measuring results: (A) The frequency increases linearly

Card 1/3

X

28779

S/057/61/031/010/012/015

B109/B102

Investigation of...

with the magnetic field strength. (B) The frequency decreases with increasing arc length L , remains, however, practically constant above $L \approx 30$. (C) The rotatable probe 1 (Fig. 1) is used to investigate the spatial distribution of the high-frequency field near the arc. Results are shown in Fig. 5. (D) The strength of the h_ϕ - component of the alternating field was measured at different distances from the arc; it decreases like $1/r^{3/2}$, and is greater when the magnetic field strength is low. Conclusion: The frequencies of the oscillations investigated range within

$\sqrt{\omega_{H_1} \omega_{H_e}}$, i. e., within hydromagnetic waves. The linear dependence of the

frequency on the magnetic field strength also fully agrees with the well-known expression for hydromagnetic waves $v = H/\sqrt{4\pi Q}$. The authors thank K. D. Sinel'nikov for advice. There are 7 figures and 3 references: 1 Soviet and 2 non-Soviet. The two references to English-language publications read as follows: I. S. Luce, Geneva conference, 1958; I. A. Sower, D. L. Scott, T. F. Stratton, Phys. of Fluids, 2, 47, 1959.

SUBMITTED: September 10, 1960

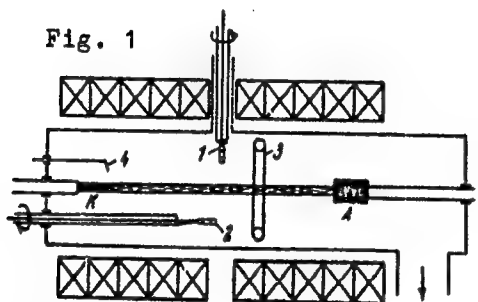
Card 2/3

X

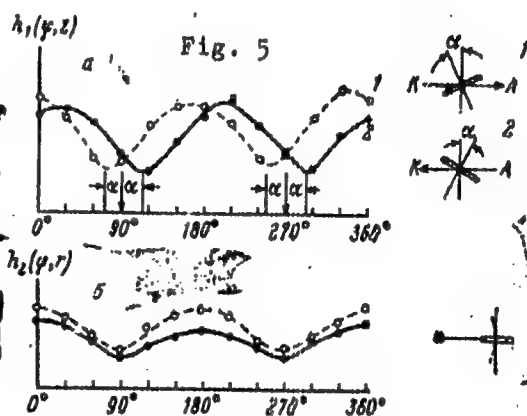
Investigation of...

28779 S/057/61/031/010/012/015
B109/H102

Fig. 5. (a) Dependence of the signal strength on the angle of rotation of the probe in the plane parallel to the arc axis. The solid lines indicate a magnetic field direction anode-cathode, whereas the broken lines indicate the reverse direction. (i) The same in the plane perpendicular to the arc axis.



Card 3/3



37265
S/057/62/032/005/010/022
B163/B102

26.2212

AUTHORS:

Kalmykov, A. A., Tereshin, V. I., Trubchaninov, S. A.,
and Safronov, B. G.

TITLE:

Interaction of plasma clusters with a spatially periodic
magnetic field

PERIODICAL: Zhurnal tekhnicheskoy fiziki, v. 32, no. 5, 1962, 579-583

TEXT: The parametric resonance of the ions in a plasma cluster moving along the axis of an axially symmetric magnetic field whose strength is a periodic function of the axial coordinate is studied experimentally. If the cyclotron frequency is nearly equal to the product of axial velocity and spatial periodicity, an increase of the velocity components perpendicular to the axis is expected, on the basis of theoretical considerations. The plasma cluster moves inside a copper cylinder of 8 cm diameter and 120 cm length. The magnetic field is formed by one external long coil, giving a homogeneous field H , and 17 equidistant internal coils of alternating polarity, producing a superimposed

Card (1/2)

S/057/62/032/005/010/022
B163/B102

Interaction of plasma clusters ...

sinusoidal modulating field $h \sin \nu z$. H is varied from 0 to 2000 gauss, and h between 0 and 150 gauss. Proton bunches with concentrations of 10^9 to 10^{10} cm^{-3} are injected through a toroidal section with a magnetic field, and the dependence of the axial and perpendicular velocity components on H and h are determined by probe measurements. [Abstracter's note: The initial ion energy is not explicitly mentioned, but can be calculated from the data as 60 ev]. Maximum increase of perpendicular velocity and reduction of axial velocity, while the total particle energy was conserved, was attained when $H = 570$ gauss and $h/H = 0.17$. It is intended to use such periodic magnetic systems for the injection of plasma clusters into magnetic traps, especially into pulsed adiabatic traps for nuclear fusion experiments. Since the observed increase of the perpendicular velocity components is a resonance effect dependent on particle mass, it is thought that a method of cleaning unwanted impurity ions from plasma clusters might be based on this effect. There are 7 figures.

SUBMITTED: February 20, 1961

X

Card 2/2

KALMYKOV, A.A.; NIKOLAYEV, F.A.

Some nuclear laboratories in England; impressions of a visit.
Atom. energ. 12 no.5:441-443 My '62. (MIRA 15:5)
(Great Britain—Nuclear engineering)

KALMYKOV, A.A.; TERESHIN, V.I.; TRUBCHANINOV, S.A.; SAFRONOV, B.G.

Interaction between plasma clots and a specially periodical magnetic field. Zhur.tekh.fiz. 32 no.5:579-583 My '62.
(MIRA 15:7)

(Plasma (Ionized gases)) (Magnetic fields)

ANILMYKOV, A. A., TIMOFEYEV, A. D., PANKRAT'YEV, YU. I., TERESHIN, V. I.,
TRUBCHANINOV, S. A., NOZDRACHEV, M. G., NABOKA, V. A., SAFRONOV, B. G.,

"Plasma Guns Investigation,"

report presented at the 6th Intl. Conf. on Ionization Phenomena in Gases,
Paris, France, 8-13 Jul 63

KALMYKOV, A.A.; TIMOFEYEV, A.D.; PANKRAT'YEV, Yu.I.; TERESHEN, V.I.;
VERESHCHAGIN, V.L.; ZLATOPOL'SKIY, L.A.

Method for measuring the energy and mass spectrum of the ion
component of a moving plasma. Prib. i tekhn. eksp. 8 no.5:142-
145 S-O '63. (MIRA 16:12)

1. Fiziko-tekhnicheskii institut AN UkrSSR.